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4,000-BUSHEL SWEETPOTATO HOUSE



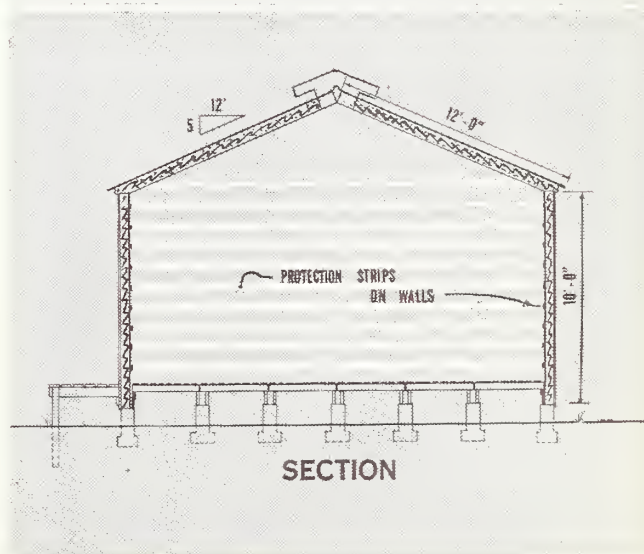
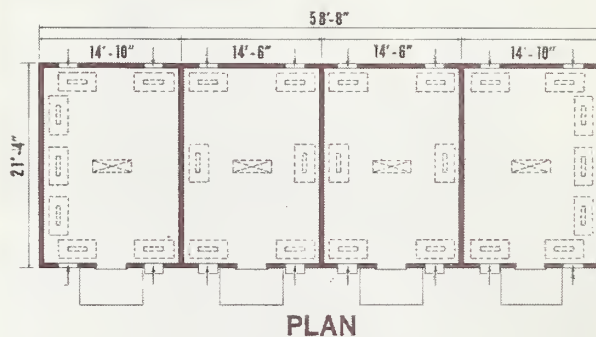
This plan details the construction of a sweetpotato curing and storage house that will hold 1,000 bushels of potatoes in each of four rooms, making the total capacity of the building 4,000 bushels. The convenience of electrical heating has made this an increasingly popular method of curing and storing sweetpotatoes on the farm.

The roof is supported on horizontal purlins that run between the partition walls separating the rooms of the building, so that the use of rafters is eliminated. The walls and roof are well insulated and provided with vapor barriers.

Complete working drawings may be obtained through your county agent or from the Extension agricultural engineer at most State agricultural colleges. There is usually a small charge.

ORDER PLAN NO. 5648. 4,000-BUSHEL
SWEETPOTATO HOUSE

If working drawings of this plan are not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Md. The U.S. Department of Agriculture does not distribute drawings, but will direct you to a State that does distribute them.

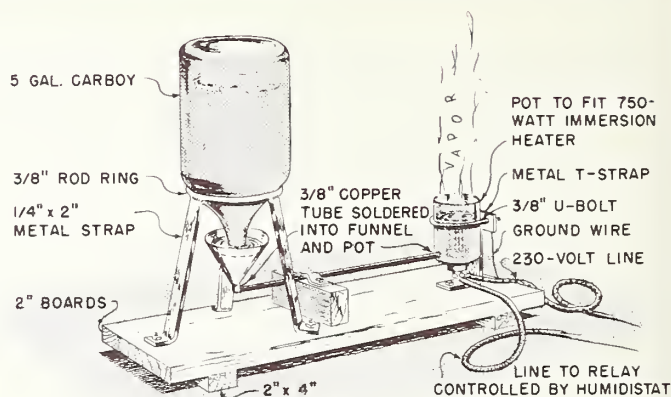
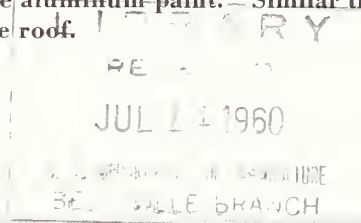


CURING AND STORAGE CONDITIONS

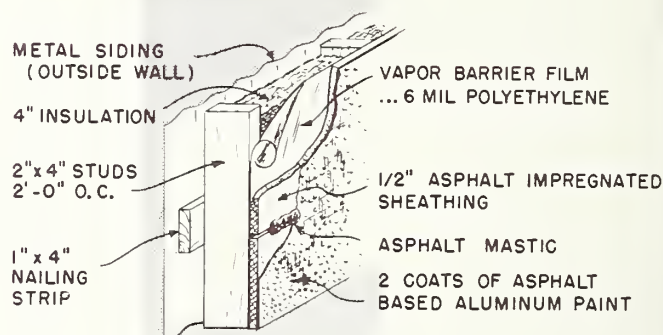
Curing of sweetpotatoes promotes suberization, or healing over, of wounds; aids conversion of some of the starches to dextrins and sugars; and greatly increases the palatability of the potatoes. Preferably, curing is accomplished by holding the potatoes at a temperature of 85° F. and a relative humidity of 85 to 90 percent for 4 to 7 days. (If curing temperatures are lower, longer curing periods are required.) After curing, the temperature should be lowered quickly to between 55° and 60°, and this temperature and a relative humidity of 85 to 90 percent should be maintained throughout the storage period. For additional information, see Farmers' Bulletin 1442, "Storage of Sweetpotatoes."

Maintenance of the high humidity essential for proper curing and storage may be difficult, especially in houses that allow air leakage. In experiments at North Carolina State College, a shop-built humidifying unit (shown at right) effectively maintained 85-percent humidity in a 1,000-bushel storage room during both the curing and storage periods.

The need for high humidity during storage and the use of electricity for heat require that special attention be given to insulation and vapor barriers. Proper vapor proofing of the interior consists of three steps: (1) A barrier film of 6 mil polyethylene is applied to the interior of the stud wall; (2) one-half inch asphalt impregnated insulating sheathing is applied and the joints are caulked with asphalt mastic; and (3) the inside wall is painted with two coats of asphalt-base aluminum paint. Similar treatment is used for the roof.



SHOP BUILT HUMIDIFIER



WALL CONSTRUCTION

ELECTRICAL DEMANDS

Electrical demand by the building is high

	Watts
Heat.....	15,600
Humidifying.....	3,000
PAR floodlights.....	200
Lighting.....	960

100 AMP	... MAIN DISCONNECT
25 A	25 A
25 A	25 A
	20 A
15 A	
15 A	... 115 V
15 A	WITH 3 SPARES

SUGGESTED CIRCUIT BREAKER PANEL

